PERSPECTIVES: THOROUGHFARE PLAN

FOR

GREENE COUNTY, OHIO

Thoroughfare Planning Volume III

1987

PREPARED BY: Regional Planning and Coordinating Commission of Greene County

Table of Contents

PERSPECTIVES: THOROUGHFARE PLAN FOR GREENE COUNTY, OHIO
Thoroughfare Planning Volume III

LIST OF TABLES

LIST OF TABLES
(Continued)

LIST OF FIGURES

LIST OF MAPS

LIST OF PLAN MAPS

LIST OF PLAN MAPS
(Continued)

LIST OF PLAN TABLES

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ACKNOWLEDGEMENTS

The Staff of the Regional Planning and Coordinating Commission of Greene County expresses appreciation to the member jurisdiction representatives, Greene County Engineering, the Miami Valley Regional Planning Commission (MVRPC), and the Ohio Department of Transporation (ODOT) for their involvement in reviewing and giving input to this plan. They made this plan meaningful and viable through their inputted consideration and concern.

FOREWORD

Perspectives: Thoroughfare Plan for Greene County

The plan is the first formal planning effort to coordinate short-range road improvement plans of Greene County local jurisdications in relation to the long-range, multiple county thoroughfare network development plan of MVRPC. It provides an evaluation system by which to assess road improvement needs and improvement projects. It also provides a comprehensive summary of information about past planned and completed road improvement projects, all modes of transportation operated on roads of the County, road improvement funding, land use influences on road improvement needs, and network road sufficiency.

The recent completion of I-675 is increasing new developments in the western half of the County, as anticipated. It is correspondingly increasing the need for upgrading present rural roads to safely handle the resulting increases in suburban traffic. Regular use of certain rural roads in the eastern half of the County by the farming community and increasing numbers of rural homesite residents also requires consideration for upgrading in addition to regular maintenance. This plan has been prepared to address improvement needs on rural network roads that are not addressed by the MVRPC Regional Transportation Plan, as well as, the urban network roads that the MVRPC plan does address.

As expressed in the Foreword of the Perspectives: Land Use Plan for Greene County, the provision of areas for development in response to demand for more intense, higher-density land use at certain locations in the County is based upon realizing improvements in roads and utilities in the form of extensions and upgrades to be provided in conjunction with new development. This plan seeks to coordinate private developer road improvements with major public funded improvements on thoroughfares that are of regional significance. The intent is to provide and maintain a good functional relationship between traffic circulation and land access.

This plan is hopefully an accurate statement of the types and extent of road improvements that have been expressed by member jurisdications and representatives as necessary and desired in conjunction with anticipated new development and present land use. However, this plan must continue in process by being regularly reviewed and updated if it is to remain a viable guideline for all that use it for development decision-making. It must constantly and consistently be related to other plans that address companion elements which altogether comprise the community of Greene County.

Chapter I
INTRODUCTION TO THE PLAN

CHAPTER ONE INTRODUCTION TO THE PLAN

INTRODUCTION/OVERVIEW

This document is a plan for one of the most important elements of the Greene County community; thoroughfares. In conjunction with motor vehicles and petroleum-based fuel, they have long been recognized as a great, if not the greatest, factor in facilitating the growth and development of today's community, and the attributable convenience of lifestyle. Thoroughfares and the network they form, like other physical elements and functional aspects of community, are dynamic in that they are always being upgraded to better fulfill the vital function of providing a way for transporting people and goods from here, to there, and back again. However, the enduring nature of thoroughfares has also established them as the lines of reference within a community, upon which all points of location are addressed. Thus, thoroughfares, in addition to being pathways for vehicle travel, also collectively serve as the framework or pattern within which the land use fabric of community is developed and organized. This diversity of functions associated with thoroughfares has been recognized and is supported in improvement recommendations proposed by this PERSPECTIVES: Thoroughfare Plan for Greene County, Ohio.

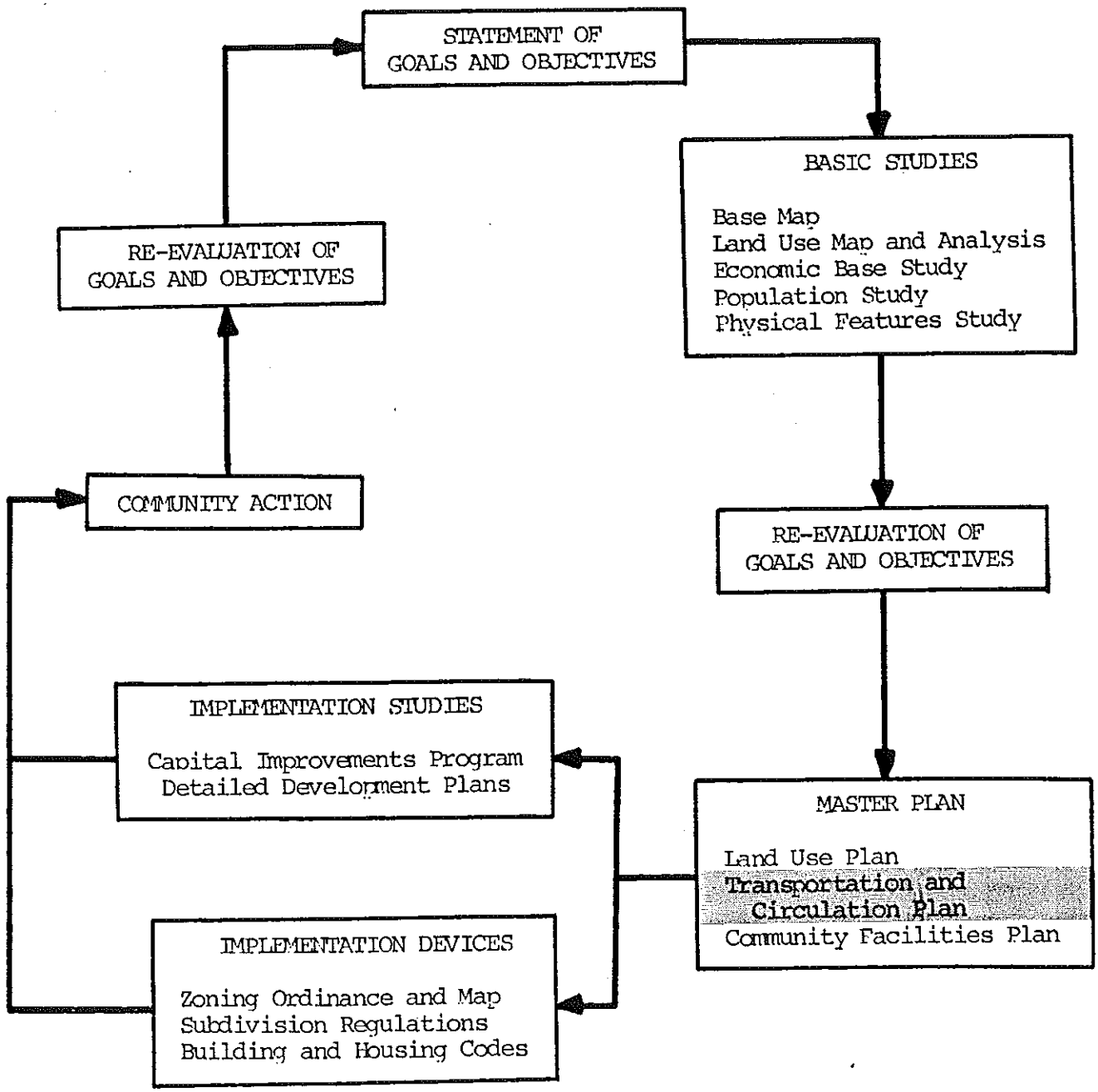
PURPOSE AND INTENT

The purpose of formulating this thoroughfare plan is to provide the Regional Planning and Coordinating Commission (RPCC) of Greene County and other local officials with a well considered tool for guiding improvement, expansion, and maintenance of the Network roads in Greene County (see Map 1-1). As elaborated upon above, thoroughfares and the Network they form are an essential infrastructure element, which not only serve as an organizational framework for local community land use and development, but also as the areawide circulation system that links us with the surrounding world. This elemental importance of thoroughfares has been recognized by its incorporation as a basic consideration into the RPCC Comprehensive Planning Process (see Figure 1-1).

Each basic element, of community growth and development recognized and considered by the comprehensive planning process for Greene County, influences the outcome of others to varying degrees. Given their primary significance, thoroughfares are an even greater initial determinent of general constraints and opportunities for community growth and development, than are other elements. They often dictate the nature of compromises that must occur among all other elements of land use, utilities, environment, and development-related aspects of the local economy.

Figure 1-1

THE PROCESS OF COMPREHENSIVE COMMUNITY PLANNING



SOURCE: Regional Planning and Coordinating Commission of Greene County, Ohio.

MAP 1-1

Thus, this thoroughfare plan has been prepared in promotion of goals and objectives (Chapter 2) which coincide with those expressed in other local and areawide plans for other elements of the Greene County Community. Improvements identified in this Plan for Network roads defined for Greene County are intended to foster and promote complimentary outcomes with relation to other planned elements of the community, such that the overall necessary quality and desired convenience of living conditions result from implementation of this Plan in conjunction with other planned elements (see Appendix A for RPCC Adoption Resolution).

DESCRIPTION OF THE PLAN AND SUPPORTING VOLUMES

This plan is the third volume of a three volume set of information products that has been prepared for the purpose of thoroughfare planning in Greene County. The first thoroughfare planning volume (unpublished working document) consists of a sufficiency assessment of Network-class roadways and bridges inventoried in Greene County and its local jurisdictions, as of 1982. Volume I describes the process and procedures by which all roadways were functionally classified, inventoried, and, if distinguished as part of the County Thoroughfare Network, assessed as to physical and functional sufficiency and prioritized as to need for improvement. The second thoroughfare planning volume is a map atlas of Greene County that depicts the locations of all roads, bridges, culverts, and railroad crossings. Volume II is the graphic key for accessing information from the corresponding inventory and assessment, by its indication of the functional classification and segmented location codes assigned to each roadway (see Appendix B for excerpts from Thoroughfare Planning Volumes I and II).

This document is the RPCC Thoroughfare Plan for Greene County. It has been prepared based on the above described RPCC thoroughfare planning research and information products, along with necessary additional input from the County Engineer, local jurisdiction planning and engineering staffs, and the traffic studies engineer for the Transportation Planning Program of the Miami Valley Regional Planning Commission. It basically consists of three (3) parts, in addition to this introduction. The first part (Chapter 2) of the plan presents the thoroughfare planning goals and objectives sought to be achieved from its implementation. The second part (Chapters 3 and 4) describes existing and projected elements and conditions of Greene County Thoroughfare Network. It summarizes the results of the Network road sufficiency assessment and improvement needs prioritization presented in thoroughfare planning Volume I. It also reexamines past-proposed and pending improvements recommended in previous and/or current plans, in addition and relation to other planning considerations and concerns. The third and final part of the plan (Chapter 5) presents and explains the programmed and suggested improvements identified for public and/or private funded implementation on Network and some Non-Network roads.

Plan implementation is proposed to alleviate and prevent traffic problems through maximizing the overall sufficiency and safety of Greene County Thoroughfare Network roadways.

Chapter II
THOROUGHFARE PLANNING GOALS AND OBJECTIVES

CHAPTER TWO - THOROUGHFARE PLANNING GOALS AND OBJECTIVES

INTRODUCTION

The terms "goal" and "objective" are general expressions commonly associated with an infinite variety of problem-solving situations and/or future-oriented endeavors. In this case, they are being defined and applied with regard to thoroughfare planning in Greene County. To further provide a more clear understanding of their meaning in application herein, the following definitions are provided for each term, along with an analogy of their intended relationship to each other.

> GOAL: Webster defines "goal" as, "the end toward which effort is directed; aim." In analogy, a goal provides a traveler with a direction, but not a specific destination at which can be arrived.
>
> OBJECTIVE: An "objective" is defined as "an aim or end of action; a point to be hit or reached". With relation to the above analogy, the traveler's objective is the destination or end-point that can be reached from travel in a certain direction. Thus, objectives are attainable; whereas goals are not. However, attainment of objections is the yard-stick by which to ascertain or measure whether or not they are seeking the indicated target and desired goal. Objectives change to better respond to existing conditions and concerns.

Therefore, thoroughfare goals herein are expressions of planning ideas to be sought through specific corresponding objectives, in the form of projects and policies implemented on the basis of day-to-day decision-making according to this plan.

FORMATION AND PRESENTATION OF THE RECOMMENDED SET

As would be expected for any long-range planning endeavor, a set of goals and corresponding objectives have been formed for the Greene County Thoroughfare Plan. They served to guide the development of plan improvement recommendations and will further guide implementation of the plan by serving as the gauging instrument for evaluating whether or not intended outcomes are thereby being achieved.

Formation of the set of thoroughfare planning goals and objectives presented herein began with a detailed review of those collected from past and existing local and regional thoroughfare plans, as well as from pertinent sections of local comprehensive plans. The resulting set is, therefore, a RPCC synthesis of those collected. The attempt is to coordinate and represent the individual interests, concerns, and desires expressed by local communities and areawide planning agencies within an overall conceptual framework pertinent and responsive to issues and

problems in Greene County. Thus, all scales or levels of public and private sector decision-making involving the Greene County Thoroughfare Network may be made in a mutually beneficial manner for the people and areas involved.

One final note is that the thoroughfare planning goals and objectives must be continuously reviewed as to their applicability and adequacy. As new concepts emerge and/or if public needs change, so must these goals and objectives be altered to better regcognize, address, and reflect upon them. As a set, they should always be supportive of the existing conditions proven to result in a balance between physical, social, economic, and environmental elements of the community. However, they must nonetheless remain flexible to recognize an imbalance in those elemental conditions and respond by seeking possible changes that may further enhance the overall functional quality of community.

Following are the goals and objectives developed for the Greene County Thoroughfare Plan (see Table 2-1). Following them is a matrix (Table 2-2) that shows the interrelationship of each goal and objective to the others.

Table 2-1

THOROUGHFARE PLANNING GOALS AND OBJECTIVES

GOAL 1

TO IMPROVE THE ABILITY OF THE COUNTY AND ITS LOCAL JURISDICTIONS TO IDENTIFY AND ASSESS PROBLEMS AND DEFICIENCIES IN THE THOROUGHFARE NETWORK

OBJECTIVES

1. To prepare and maintain an inventory and corresponding map of the existing Thoroughfare Network according to a commonly recognized format.

   A. To functionally classify all roads in the Network according to the type of service they are to provide (i.e., arterials, collectors, or local roads)

   B. To segment all roads in the Network according to commonly agreed upon determinants and coding for the purpose of inventorying.

   C. To inventory road conditions according to (B).

   D. To inventory and maintain accident records.

2. To develop evaluation criteria and methods which will enable potential Network problems to be readily identified, assessed, and prioritized for improvement.

3. To establish electronic data processing for maintaining inventory records and facilitating assessment capability.

GOAL II

TO PROMOTE AN INTEGRATED THOROUGHFARE NETWORK WHICH PROVIDES FOR ECONOMIC, SAFE, AND EFFICIENT MOVEMENT OF ALL PEOPLE AND GOODS WITHIN GREENE COUNTY AND BETWEEN GREENE COUNTY AND OTHER ADJACENT JURISDICTIONS.

OBJECTIVES

1. To coordinate with contiguous jurisdictions and State and Federal agencies on transportation and development activities to reduce the possibility of inappropriate or redundant road development or conflicting land uses potentially resultant in association therewith.

2. To develop a thoroughfare network which compliments existing land use and the future land use plan, and promotes orderly growth within Greene County.

   A. Prevent early obsolescence at highway interchange areas through sound land use planning.

   B. Prevent early roadway obsolescence by disallowing indiscriminate "strip" and "sprawl" development or development at a density that would overwhelm the traffic handling capability of existing conditions.

   C. Promote land use development which facilitates the operation of mass transit.

   D. Time specific projects to coordinate with other urban development, in effort to achieve objective 2B.

   E. Locate improvements to help form boundaries for integrated groupings of land use (neighborhoods, communities, sub-areas).

3. To accommodate existing and anticipated traffic volume and to facilitate alternate modes of transportation.

   A. Accommodate support and propose improvements for thoroughfares within and adjacent to Greene County that will facilitate better existing and anticipated traffic volume that comes from outside the County to destinations within the County and/or passes through Greene County,

   B. Support and prepare improvements for thoroughfares that will better facilitate vehicular trips to and from major generators, such as; places of employment, commerce, and residence.

   C. Encourage the projects and programs which will further the use of other modes of transportation, in addition to automobiles and trucks.

D. Encourage car-pooling and staggered shifts.

E. Propose and encourage projects that will increase facilities for pedestrian and bikeway travel.

4. Support and propose projects and programs that will increase the range of accessibility for people without cars and/or for people that can not drive.

5. Support and propose projects and programs that will minimize dependence on automobiles.

6. Support and propose improvements and policies that will maximize safety of travel, as measured in fewer traffic accidents.

   A. Encourage ordinance regulations that minimize through-traffic in residential neighborhoods.

   B. Encourage continuous monitoring of speed limits to insure they are appropriate to changing conditions.

7. Support and propose improvements that will minimize travel time.

8. Support and propose ideas and recommendations that will minimize construction and maintenance costs.

9. Support and propose selected additions and improvements to the thoroughfare system that will provide for a more efficient travel to and from the highway arterials of the Network.

10. Coordinate improvement plans and projects with recommendations of the thoroughfare plan.

11. Protect the design capacity of all roads within the Network.

   A. Control adjacent land uses according to assessed limits of trip generation and anticipated distribution.

   B. Control the addition of new curb cuts and intersecting streets on arterials.

   C. Require frontal or service access for new commercial/industrial uses when indicated necessary by plan evaluations.

   D. Provide a sychronized traffic control system for intersecting streets on arterials.

12. Evaluate and require improvements and new facilities to conform to minimum State standards on traffic safety and physical design.

GOAL III

TO ENHANCE THE QUALITY OF LIFE IN GREENE COUNTY

OBJECTIVES

1. Maximize accessibility to places of employment, commerce, residence, and recreation.

2. Minimize negative impacts, on the aesthetic characteristics of both the man-made and the natural environment, that are caused by or associated with thoroughfare improvements.

3. Minimize the noise impact associated with the construction and operation of thoroughfare improvements.

4. Minimize residential and employee displacement resulting from thoroughfare improvements.

5. Encourage land development at a rate only as fast as the thoroughfare system is capable of handling it.

GOAL IV

TO PROTECT THE NATURAL ENVIRONMENT

OBJECTIVES

1. Minimize existing and potential water pollution resulting from the maintenance, operation, and expansion of the Thoroughfare Network.

   A. Provide non-point source controls both during and after construction of improvements and as according to assessed needs resulting from existing thoroughfares.

2. Minimize air pollution according to air pollution control authority reommendations.

3. Minimize land used for transportation as a proportion of total area in new developments.

TABLE 2-2

MATRIX OF INTER-RELATIONSHIPS BETWEEN THOROUGHFARE PLANNING GOALS AND OBJECTIVES

	GOAL I TO IMPROVE THE ABILITY OF THE COUNTY AND ITS LOCAL JURISDICTIONS TO IDENTIFY AND ASSESS PROBLEMS AND DEFICIENCIES IN THE THOROUGHFARE NETWORK.	GOAL II TO PROMOTE AN INTEGRATED THOROUGHFARE NETWORK THAT PROVIDES FOR ECONOMIC, SAFE, AND EFFICIENT MOVEMENT OF PEOPLE AND GOODS WITHIN GREENE COUNTY AND BETWEEN GREENE COUNTY AND OTHER ADJACENT LOCAL JURISDICTIONS.	GOAL III TO ENHANCE THE QUALITY OF LIFE IN GREENE COUNTY.	GOAL IV TO PROTECT THE NATURAL ENVIRONMENT.
GOAL 1				
TO IMPROVE THE ABILITY OF THE COUNTY AND ITS LOCAL JURISDICTIONS TO IDENTIFY AND ASSESS PROBLEMS AND DEFICIENCIES IN THE THOROUGHFARE NETWORK	*			
OBJECTIVES				
1. To prepare and maintain an inventory and corresponding map of the existing Thoroughfare Network according to a commonly recognized format.	*			
A. To functionally classify all roads in the Network according to the type of service they are to provide (i.e., arterials, collectors, or local roads)	*			
B. To segment all roads in the Network according to commonly agreed upon determinants and coding for the purpose of inventorying.	*			
C. To inventory road conditions according to (B).	*			
D. To inventory and maintain accident records.	*	*		
2. To develop evaluation criteria and methods which will enable potential Network problems to be readily identified, assessed, and prioritized for improvement.	*	*		
3. To establish electronic data processing for maintaining inventory records and facilitating assessment capability.	*			
GOAL II				
TO PROMOTE AN INTEGRATED THOROUGHFARE NETWORK WHICH PROVIDES FOR ECONOMIC, SAFE, AND EFFICIENT MOVEMENT OF ALL PEOPLE AND GOODS WITHIN GREENE COUNTY AND BETWEEN GREENE COUNTY AND OTHER ADJACENT JURISDICTIONS.	*	*	*	
OBJECTIVES				
1. To coordinate with contiguous jurisdictions and State and Federal agencies on transportation and development activities to reduce the possibility of inappropriate or redundant road development or conflicting land uses potentially resultant in association therewith.	*	*	*	
2. To develop a thoroughfare network which compliments existing land use and the future land use plan, and promotes orderly growth within Greene County.	*	*	*	*
A. Prevent early obsolescence at highway interchange areas through sound land use planning.	*	*	*	
B. Prevent early roadway obsolescence by disallowing indiscriminate "strip" and "sprawl" development or development at a density that would overwhelm the traffic handling capability of existing conditions.		*	*	
C. Promote land use development which facilitates the operation of mass transit.	*	*	*	
D. Time specific projects to coordinate with other urban development, in effort to achieve objective 2B.		*	*	*
E. Locate improvements to help form boundaries for integrated groupings of land use (neighborhoods, communities, sub-areas).	*	*	*	*
3. To accommodate existing and anticipated traffic volume and to facilitate alternate modes of transportation.	*	*	*	
A. Accommodate support and propose improvements for thoroughfares within and adjacent to Greene County that will facilitate better existing and anticipated traffic volume that comes from outside the County to destinations within the County and/or passes through Greene County,	*	*	*	
B. Support and prepare improvements for thoroughfares that will better facilitate vehicular trips to and from major generators, such as; places of employment, commerce, and residence.	*	*	*	
C. Encourage the projects and programs which will further the use of other modes of transportation, in addition to automobiles and trucks.		*	*	
D. Encourage car-pooling and staggered shifts.		*	*	
E. Propose and encourage projects that will increase facilities for pedestrian and bikeway travel.	*	*	*	*
4. Support and propose projects and programs that will increase the range of accessibility for people without cars and/or for people that can not drive.		*	*	

SOURCE: RPCC of Greene County, 1986.

TABLE 2-2
(Continued)
MATRIX OF INTER-RELATIONSHIPS BETWEEN THOROUGHFARE PLANNING GOALS AND OBJECTIVES

	GOAL I TO IMPROVE THE ABILITY OF THE COUNTY AND ITS LOCAL JURISDICTIONS TO IDENTIFY AND ASSESS PROBLEMS AND DEFICIENCIES IN THE THOROUGHFARE NETWORK.	GOAL II TO PROMOTE AN INTEGRATED THOROUGHFARE NETWORK THAT PROVIDES FOR ECONOMIC, SAFE, AND EFFICIENT MOVEMENT OF PEOPLE AND GOODS WITHIN GREENE COUNTY AND BETWEEN GREENE COUNTY AND OTHER ADJACENT LOCAL JURISDICTIONS.	GOAL III TO ENHANCE THE QUALITY OF LIFE IN GREENE COUNTY.	GOAL IV TO PROTECT THE NATURAL ENVIRONMENT.
GOAL II (Continued)				
5. Support and propose projects and programs that will minimize dependence on automobiles.		*	*	*
6. Support and propose improvements and policies that will maximize safety of travel, as measured in fewer traffic accidents.	*	*	*	
A. Encourage ordinance regulations that minimize through-traffic in residential neighborhoods.		*	*	
B. Encourage continuous monitoring of speed limits to insure they are appropriate to changing conditions.	*	*	*	
7. Support and propose improvements that will minimize travel time.		*	*	*
8. Support and propose ideas and recommendations that will minimize construction and maintenance costs.		*	*	
9. Support and propose selected additions and improvements to the thoroughfare system that will provide for a more efficient travel to and from the highway arterials of the Network.		*	*	*
10. Coordinate improvement plans and projects with recommendations of the thoroughfare plan.	*	*	*	*
11. Protect the design capacity of all roads within the Network.		*	*	
A. Control adjacent land uses according to assessed limits of trip generation and anticipated distribution.	*	*	*	
B. Control the addition of new curb cuts and intersecting streets on arterials.		*	*	
C. Require frontal or service access for new commercial/industrial uses when indicated necessary by plan evaluations.		*	*	
D. Provide a sychronized traffic control system for intersecting streets on arterials.		*	*	*
12. Evaluate and require improvements and new facilities to conform to minimum State standards on traffic safety and physical design.		*	*	
GOAL III				
TO ENHANCE THE QUALITY OF LIFE IN GREENE COUNTY		*	*	*
OBJECTIVES				
1. Maximize accessibility to places of employment, commerce, residence, and recreation.		*	*	
2. Minimize negative impacts, on the aesthetic characteristics of both the man-made and the natural environment, that are caused by or associated with thoroughfare improvements.			*	*
3. Minimize the noise impact associated with the construction and operation of thoroughfare improvements.		*	*	*
4. Minimize residential and employee displacement resulting from thoroughfare improvements.			*	*
5. Encourage land development at a rate only as fast as the thoroughfare system is capable of handling it.		*	*	*
GOAL IV				
TO PROTECT THE NATURAL ENVIRONMENT			*	*
OBJECTIVES				
1. Minimize existing and potential water pollution resulting from the maintenance, operation, and expansion of the Thoroughfare Network.			*	*
A. Provide non-point source controls both during and after construction of improvements and as according to assessed needs resulting from existing thoroughfares.			*	*
2. Minimize air pollution according to air pollution control authority recommendations.			*	*
3. Minimize land used for transportation as a proportion of total area in new developments.		*	*	*

SOURCE: RPCC of Greene County, 1986.

Chapter III
PLAN SUMMARY OF THOROUGHFARE NETWORK CONDITION

CHAPTER THREE - PLAN SUMMARY of THOROUGHFARE NETWORK CONDITIONS

INTRODUCTION

The "backbone" Network of major thoroughfares within Greene County are identified in this Chapter, as defined by functional classification criteria that were developed and applied in Volume I to a complete inventory of all roads in Greene County. This chapter also contains a summary of the Volume I Network Road Sufficiency Assessment. Accident survey data is also summarized.

NETWORK DEFINITION and ASSESSMENT DESCRIPTION

For the purpose of organizing the roadway inventory, accident survey, and Network road sufficiency assessment according to urban and rural traffic demands upon the Thoroughfare Network, the Townships of the County, inclusive of a City and/or Village respectively located within them, were grouped into Western and Eastern Planning Areas (see Map 3-1). The local jurisdictions that constitute Local Planning Areas of the Western and Eastern Planning Areas of Greene County are listed below:

• WESTERN PLANNING AREAS (URBAN)	o EASTERN PLANNING AREAS (RURAL)
• Bath Township and Fairborn City	o Caesarscreek Township
• Beavercreek Township and City	o Cedarville Township and Village
• Miami Township and Villages of Yellow Springs and Clifton	o Jefferson Townshipand Bowersville Village
• Spring Valley Township and Village	o New Jasper Township
• Sugarcreek Township and Bellbrook City	o Ross Township
• Xenia Township and City	o Silvercreek Township and Jamestown Village

The urban and urbanizing Township and City jurisdictions constitute Western Planning Areas of Greene County. The least urbanized and mostly rural Township and Village jurisdictions constitute its Eastern Planning Areas. Table 3-1 summarizes the inventory of all roads within each Greene County planning area local jurisdiction by functional classification.

Map 3-1

GREENE COUNTY EASTERN AND WESTERN PLANNING AREAS

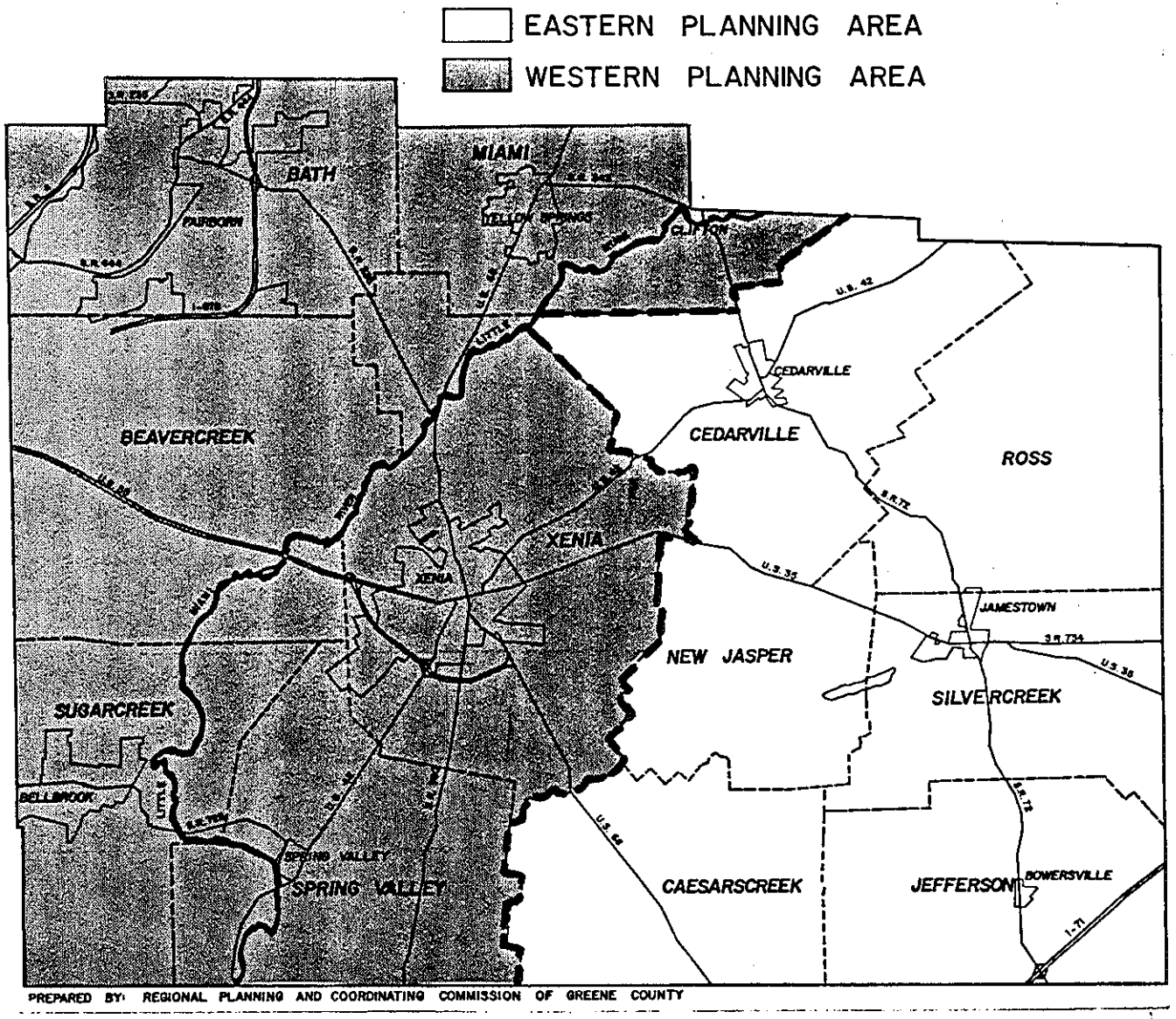


Table 3 - 1

INVENTORIED ROADWAY MILES IN GREENE COUNTY

BY PLANNING AREA LOCAL JURISDICTION (1982)

ROADWAY MILES AND PERCENT BY FUNCTIONAL CLASSIFICATION

PLANNING AREA LOCAL JURISDICTION	MILEAGE SUBTOTAL	1 Interstate Arterial		2 Freeway Arterial		3 Principal Arterial		4 Minor Arterial		5 Principal Collector		6 Urban Local Collector		7 Rural Local Collector		8 Local	
WESTERN PLANNING AREAS		MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%
Bath Township	59.29	0.00	0.0	4.05	6.8	5.89	9.9	5.75	9.6	10.20	17.2	3.00	5.3	6.14	10.3	24.26	40.9
Fairborn City	100.33	0.00	0.0	3.96	3.9	4.71	4.6	5.41	5.3	13.25	13.2	16.13	16.0	0.00	0.0	56.87	57.0
Sub Total	159.62	0.00	0.0	8.01	5.0	10.60	6.6	11.16	6.9	23.45	14.7	19.13	11.9	6.14	3.8	81.13	50.8
Beavercreek Township	48.67	0.00	0.0	5.42	11.1	1.02	2.0	11.39	23.4	14.93	30.6	.27	0.5	3.12	6.7	12.52	25.7
Beavercreek City	189.01	0.00	0.0	5.42	2.4	4.95	2.6	14.97	7.9	24.96	13.2	42.92	22.9	0.00	0.0	96.54	51.0
Sub Total	237.68	0.00	0.0	10.09	4.0	5.97	2.0	26.36	12.0	39.89	16.0	43.19	19.0	3.12	1.0	109.06	46.0
Miami Township	48.99	0.00	0.0	0.00	0.0	2.81	5.7	3.34	6.8	6.39	13.1	0.37	0.7	20.82	42.5	15.26	31.2
Yellow Springs Village	25.15	0.00	0.0	0.00	0.0	1.71	6.8	1.11	4.4	3.20	12.7	5.37	21.3	0.18	0.7	13.58	54.1
Clifton Village	1.33	0.00	0.0	0.00	0.0	0.00	0.0	0.18	13.8	0.28	21.5	0.21	16.1	0.30	22.0	0.36	26.6
Sub Total	75.47	0.00	0.0	0.00	0.0	4.52	5.9	4.63	6.1	9.87	13.3	5.95	7.8	21.30	28.2	29.20	38.7
Spring Valley Township	72.21	0.00	0.0	0.00	0.0	0.00	0.0	8.92	12.5	5.22	7.2	0.53	0.7	17.20	23.8	40.34	55.8
Spring Valley Village	3.47	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.92	27.0	0.00	0.0	2.55	73.0
Sub Total	75.68	0.00	0.0	0.00	0.0	0.00	0.0	8.92	11.7	5.22	6.9	1.45	1.9	17.20	22.7	42.89	56.8
Sugacreek Township	66.72	0.00	0.0	0.00	0.0	2.19	3.2	2.73	4.0	23.19	34.9	6.36	9.7	8.46	12.6	23.79	35.6
Bellbrook City	23.93	0.00	0.0	0.00	0.0	0.00	0.0	1.92	6.6	2.04	7.0	8.77	30.3	0.00	0.0	16.20	56.1
Sub Total	95.65	0.00	0.0	0.00	0.0	2.19	2.2	4.65	4.8	25.23	26.6	15.13	15.8	8.46	8.8	39.99	41.8
Xenia Township	112.02	0.00	0.0	4.65	4.1	9.00	8.0	13.70	12.2	9.52	8.5	4.17	3.7	26.46	23.6	44.52	39.9
Xenia City	95.79	0.00	0.0	2.00	2.0	4.49	4.6	7.31	7.6	7.98	8.3	18.37	19.5	0.34	0.3	55.30	57.7
Sub Total	207.81	0.00	0.0	6.65	3.2	13.49	6.4	21.01	10.1	17.50	8.4	22.54	10.9	26.80	12.9	99.82	48.1
TOTAL	851.91	0.00	0.0	24.75	2.9	36.77	4.3	76.73	9.0	121.16	14.2	107.39	12.6	83.02	9.7	402.09	47.3
EASTERN PLANNING AREAS																	
Caesarscreek Township	55.26	0.00	0.0	0.00	0.0	0.00	0.0	5.05	9.1	0.00	0.0	0.00	0.0	19.58	35.4	30.63	55.5
Cedarville Township	68.76	0.00	0.0	0.00	0.0	2.95	4.2	11.44	16.6	0.00	0.0	0.00	0.0	15.32	22.2	39.05	57.0
Cedarville Village	8.93	0.00	0.0	0.00	0.0	0.00	0.0	2.31	25.9	1.10	12.3	0.86	9.6	0.17	1.9	4.49	50.3
Sub Total	77.69	0.00	0.0	0.00	0.0	2.95	3.8	13.75	17.7	1.10	1.4	0.86	1.1	15.49	19.9	43.54	56.1
Jefferson Township	62.76	4.07	6.4	0.00	0.0	0.00	0.0	4.60	7.3	0.00	0.0	0.00	0.0	8.97	14.4	45.12	71.9
New Jasper Township	49.28	0.00	0.0	0.00	0.0	(4.64)	9.4	0.00	0.0	3.87	7.8	2.23	4.5	10.08	20.5	28.46	57.8
Ross Township	51.02	0.00	0.0	0.00	0.0	0.00	0.0	3.21	6.2	0.00	0.0	0.00	0.0	13.22	25.9	34.59	67.9
Silvercreek Township	54.40	0.00	0.0	0.00	0.0	6.31	11.5	2.92	5.4	5.23	9.7	1.43	2.7	14.67	26.9	23.84	43.8
Jamestown Village	7.66	0.00	0.0	0.00	0.0	1.04	13.0	1.07	14.0	0.00	0.0	0.00	0.0	0.51	6.7	5.04	66.3
Sub Total	62.06	0.00	0.0	0.00	0.0	7.35	11.8	3.99	6.4	5.23	8.4	1.43	2.3	15.18	24.4	28.88	46.7
TOTAL	358.07	4.07	1.1	0.00	0.0	14.94	4.1	30.60	8.5	10.20	2.8	4.52	1.2	82.52	23.1	211.22	59.2
GRAND TOTAL	1,209.98	4.07	0.3	24.75	2.1	51.71	4.3	107.33	8.9	131.36	10.8	111.91	9.3	165.54	13.7	613.31	50.6

SOURCE: RPCC of Greene County, 1986.

As defined and evaluated in thoroughfare planning Volume I, the major "backbone" Thoroughfare Network in Greene County consists of roads that have been assigned the following functional classifications, with exception of those indicated. Map 3-2 shows the functional classification of roads in Greene County.

CODE	NAME/DESCRIPTION	MAJOR NETWORK	EVALUATED
1	Interstate Artery	yes	no
2	Freeway Arterial	yes	yes
3	Principal Arterial	yes	yes
4	Minor Arterial	yes	yes
5	Principal Arterial	yes	yes
6	Urban Local Collector	yes	no
7	Rural Local Collector	yes	yes
8	Local Urban and Rural	no	no

In brief, the Volume I assessment of Network roads evaluated the physical and functional sufficiency of each according to assessment criteria and a scoring methodology that correspondingly related to and was weighted by road functional classification (see Appendix C for Volume I Network Road Sufficiency Assessment Results). Tables 3-2 and 3-3 briefly explain the assessment criteria and evaluation scoring methodology that were utilized. Map 3-3 depicts the results of the Network Road Sufficiency Assessment. As indicated above, roads functionally classified Interstates, Urban Local Collectors, or Local were not evaluated by the sufficiency assessment, even though two are part of the Thoroughfare Network.

Interstates (Class 1) were not evaluated because they are relatively new and best assessed for need of improvement by Federal and State Departments of Transportation.

Assessment and scoring criteria were developed for Urban Local Collectors (Class 6), but they were not evaluated. This is because they are vastly different from one Greene County incorporated local jurisdiction to the next, due to a wide range of variations in on-street parking and traffic demands that have resulted from development of different types and intensities of urban use in each. Each City and Village should use the RPCC assessment methodology to evaluate the sufficiency of the Urban Local Collectors that have been identified within them.

Local (Class 8) roads were excluded from evaluation because they are non-Network roads and, therefore, generally of little or no importance to consider in planning for regional traffic management. It is also the planning posture that they are appropriately best addressed by the government of the local jurisdiction in which they are located.

MAP 3-2

Table 3 - 2

NETWORK ROAD SUFFICIENCY ASSESSMENT

CRITERIA, SCORING FACTORS, AND SCORE RANK CLASSIFICATION

Sufficiency Assessment Criteria Scoring Factors

Possible Score Rank:	Excellent	Good	Adequate	Inadequate	% Score Category	% Total Score
PHYSICAL SUFFICIENCY SCORING FACTORS						
Lane Width	.90	.60	.30	0	30%	15%
Number of Lanes	.90	.60	.30	0	30%	15%
Pavement Condition	.60	.40	.20	0	20%	10%
Right-of-Way Width	.36	.24	.12	0	12%	6%
Percent Vertical Grade	.12	.08	.04	0	4%	2%
Percent Optimum Sight Distance	.12	.08	.04	0	4%	2%
Total Possible Score:	3	2	1	0	100%	50%
FUNCTIONAL SUFFICIENCY SCORING FACTORS						
Percent Volume to Capacity	.96	.64	.32	0	32%	16%
Degree of Service Disruption	.96	.64	.32	0	32%	16%
Type of Service and Control	.36	.24	.12	0	12%	6%
Road Class Separation Distance	.36	.24	.12	0	12%	6%
Road Class Linkage	.36	.24	.12	0	12%	6%
Total Possible Score:	3	2	1	0	100%	50%

Totaled Sufficiency Scores Ranking Index

0.00 through 1.00 = ADEQUATE

1.01 through 2.00 = GOOD

2.01 through 3.00 = EXCELLENT

Sufficiency Score Rank Prioritization

PHYSICAL RANK	FUNCTIONAL RANK		RANKING PRIORITY	PRIORITY RANKING
E	E	=	9th	3rd
G	E	=	8th	
A	E	=	7th	
E	G	=	6th	2nd
G	G	=	5th	
A	G	=	4th	
E	A	=	3rd	
G	A	=	2nd	1st
A	A	=	1st	

SOURCE: RPCC of Greene County, 1983.

Table 3-3

NETWORK ROAD ASSESSMENT
SCORE RANK CLASSIFICATION DEFINITIONS

OF:

PHYSICAL SUFFICIENCY

EXCELLENT: Road conditions meet or exceed recommended design criteria for the type of service function it performs within the Network.

GOOD: Road conditions generally satisfy design criteria recommended for the type of service function it facilitates, although some spot improvements are needed at certain problem locations to improve overall safety and convenience.

ADEQUATE: Some, but not all, roadway conditions are deficient compared to design criteria for the type of service function required; such that overall opereational safety and/or convenience is impaired.

FUNCTIONAL SUFFICIENCY

EXCELLENT: Optimum levels of operational safety and convenience are facilitated by the roadway; both in terms of the performance of individual segments and overall intended function within the regional road network.

GOOD: Overall operational safety and convenience are facilitated by the design of the roadway and its situation within the regional road network, although problems of control and disruption at one or more segment locations impair or prohibit better possible service.

ADEQUATE: Operational safety and convenience are borderline. Minimum levels of service are achieved because of excessive disruptions on or along the roadway due to a lack of traffic and/or land-access controls.

SOURCE: Regional Planning and Coordinating Commission of Greene County.

MAP 3-3

SUFFICIENCY ASSESSMENT RESULTS and EVALUATION SUMMARY

The individual mileage of Network roads in each Local Planning Area that were assessed first or second priority for improvement (Appendix C) have been aggregated in the summary evaluation tables (3-4 through 3-7) by percentages for presentation in several ways, according to: road functional classification, Network area, and roadway responsibility. This was done in order to quantify the magnitude of thoroughfare improvement needs respective to each Local Planning Area, the Western or Eastern Planning Area in which it exists, and the entire County.

Tables 3-4 a,b,c,d and 3-5 a,b,c,d summar'ze the magnitude of first and second priority road improvement needs as determined by the Network road sufficiency assessment. Tables 3-4 a,b,c,d quantify the magnitude of Western Planning Area Network road improvement needs. Tables 3-5 a,b,c,d quantify the magnitude of Eastern Planning Area Network road improvement needs.

The (a) table in each set of Planning Area Network road sufficiency evaluation summary tables shows the percentage that deficient-ranked Network roads of a given functional class constitute of the Planning Area Network roads of the same functional class. The (b) table then conveys the same type of information as a percentage of all the roads of a given functional class within Greene County.

The (c) table in each set of Planning Area Network road evaluation summary tables proceeds by showing the percentage that deficient-ranked Network roads constitute of all Network roads in that Planning Area group of the County. The (d) table then gives the same type of information as a percentage of all Network roads in the entire County.

To enhance the reader's understanding of the thoroughfare planning significance of the Network road sufficiency assessment evaluation tables just described, the following example is provided. It more clearly indicates how each of the summary tables, in quantifying different relationships of the Network road sufficiency assessment results, have been used to evaluate the magnitude of improvement needs.

The 11.10 miles of Principal Collectors in the Sugarcreek Planning Area that have been assessed first or second priority for improvement (from Volume I Table 3-5) constitutes 9.16 percent of the Principal Collectors in the Western Planning Area portion of the Greene County Thoroughfare Network (Table 3-4a) and 8.45 percent of all Principal Collectors in the entire Greene County Network (Table 3-4b). They also constitute 3.24 percent of all Network roads in the Western Planning Area of Greene County (Table 3-4c) and 2.29 percent of all Network roads in the entire County ,excluding Urban Local Collectors (Table 3-4d).

Table 3-4 a,b,c,d

EVALUATION TABLES of SUFFICIENCY ASSESSMENT RESULTS for WESTERN PLANNING AREA NETWORK ROADS by LOCAL JURISDICTIONS and FUNCTIONAL CLASS

MAGNITUDE OF IMPROVEMENT NEEDS IN RELATION TO FUNCTIONAL CLASS MILEAGE

FIRST AND SECOND PRIORITY IMPROVEMENT NEEDS AS A PERCENTAGE OF: (a) WESTERN PLANNING AREA NETWORK ROADS OF THE SAME FUNCTIONAL CLASS.

Western Planning Area Local Jurisdictions	Network Roads by Functional Class Code				
	2	3	4	5	7
Bath Township/Fairborn City	4.36	8.54	2.69	3.12	.90
Beavercreek Township and City	11.07	5.82	10.03	6.09	1.74
Miami Township/Yellow Springs/Clifton	-----	2.64	-----	2.12	6.38
Spring Valley Township and Village	-----	----	.72	2.11	-----
Sugarcreek Township/Bellbrook City	-----	5.95	2.37	9.16	2.79
Xenia Township and City	-----	20.23	4.46	1.93	3.90
	15.43	43.18	20.27	24.53	15.71

(b) GREENE COUNTY NETWORK ROADS OF THE SAME FUNCTIONAL CLASS.

	2	3	4	5	7
Bath Township/Fairborn City	4.36	6.07	1.93	2.88	.45
Beavercreek Township and City	11.07	4.14	7.17	5.62	.87
Miami Township/Yellow Springs/Clifton	-----	1.87	----	1.96	3.20
Spring Valley Township and Village	-----	----	.51	1.95	----
Sugarcreek Township/Bellbrook City	-----	4.23	1.70	8.45	1.40
Xenia Township and City	-----	14.39	3.19	1.78	1.96
	15.43	30.70	14.50	22.64	7.88

MAGNITUDE OF IMPROVEMENT NEEDS IN RELATION TO TOTAL NETWORK MILEAGE

FIRST AND SECOND PRIORITY IMPROVEMENT NEEDS AS A PERCENTAGE OF: (c) ALL WESTERN PLANNING AREA NETWORK ROADS.

	2	3	4	5	7		TOTAL
Bath Township/Fairborn City	.31	.92	.60	1.11	.22	=	3.16
Beavercreek Township and City	.80	.62	2.25	2.15	.42	=	6.24
Miami Township/Yellow Springs/Clifton	----	.28	----	.75	1.55	=	2.58
Spring Valley Township and Village	----	----	.16	.77	----	=	.93
Sugarcreek Township/Bellbrook City	----	.64	.53	3.24	.68	=	5.09
Xenia Township and City	----	2.17	1.00	.68	.95	=	4.80
	1.11	4.63	4.54	8.70	3.82		22.80

(d) ALL GREENE COUNTY NETWORK ROADS.

	2	3	4	5	7	TOTAL
Bath Township/Fairborn City	.22	.64	.42	.78	.15	2.21
Beavercreek Township and City	.56	.44	1.60	1.52	.30	4.42
Miami Township/Yellow Springs/Clifton	----	.20	----	.53	1.09	1.82
Spring Valley Township and Village	----	----	.11	.53	----	.64
Sugarcreek Township/Bellbrook City	----	.45	.37	2.29	.48	3.59
Xenia Township and City	----	1.53	.70	.48	.67	3.38
	.78	3.26	3.20	6.13	2.69	16.06

SOURCE: RPCC of Greene County, 1983.

FUNCTIONAL CLASS CODING
2 = Freeway Arterial
3 = Principal Arterial
4 = Minor Arterial
5 = Principal Collector
7 = Rural Local Collector

Table 3-5 a,b,c,d

EVALUATION TABLES of SUFFICIENCY ASSESSMENT RESULTS for EASTERN PLANNING AREA NETWORK ROADS by LOCAL JURISDICTIONS and FUNCTIONAL CLASS

MAGNITUDE OF IMPROVEMENT NEEDS IN RELATION TO FUNCTIONAL CLASS MILEAGE

FIRST AND SECOND PRIORITY IMPROVEMENT NEEDS AS A PERCENTAGE OF:
(a) EASTERN PLANNING AREA NETWORK ROADS OF THE SAME FUNCTIONAL CLASS.

Eastern Planning Area Local Jurisdictions	Network Roads by Functional Class Code			
	3	4	5	7
Caesarscreek Township	----	----	----	----
Cedarville Township and Village	19.81*	1.04	1.47	----
Jefferson Township/Bowersville Village	------	----	----	----
New Jasper Township	12.66	----	10.78	3.16
Ross Township	-----	----	-----	----
Silvercreek Township/Jamestown Village	29.85	----	8.53	----
	62.32	1.04	20.78	3.16

(b) GREENE COUNTY NETWORK ROADS OF THE SAME FUNCTIONAL CLASS.

	3	4	5	7
Caeserscreek Township	----	----	----	-----
Cedarville Township and Village	5.72*	.29	.11	-----
Jefferson Township/Bowersville Village	-----	----	----	-----
New Jasper Township	3.24	----	.84	1.58
Ross Township	----	----	----	-----
Silvercreek Township/Jamestown Village	8.62	----	.66	-----
	17.58	.29	1.61	1.58

MAGNITUDE OF IMPROVEMENT NEEDS IN RELATION TO TOTAL NETWORK MILEAGE

FIRST AND SECOND PRIORITY IMPROVEMENT NEEDS AS A PERCENTAGE OF:
(c) ALL EASTERN PLANNING AREA NETWORK ROADS.

	3	4	5	7		TOTAL
Caesarscreek Township	----	----	----	----	=	.00
Cedarville Township and Village	2.08*	.22	.10	----	=	2.40
Jefferson Township/Bowersville Village	----	----	----	----	=	.00
New Jasper Township	1.18	----	.77	1.83	=	3.78
Ross Township	----	----	----	----	=	.00
Silvercreek Township/Jamestown Village	3.13	----	.61	----	=	3.74
	6.39	.22	1.48	1.83	=	9.92

(d) ALL GREENE COUNTY NETWORK ROADS.

	3	4	5	7		TOTAL
Caesarscreek Township	----	----	----	----	=	.00
Cedarville Township and Village	.61*	.06	.03	----	=	.70
Jefferson Township/Bowersville Village	----	----	----	----	=	.00
New Jasper Township	.34	----	.23	.54	=	1.11
Ross Township	----	----	----	----	=	.00
Silvercreek Township/Jamestown Village	.60	----	.12	----	=	.72
	1.55	.06	.38	.54	=	2.53

SOURCE: RPCC of Greene County, 1983.

FUNCTIONAL CLASS CODING
3 = Principal Arterial
4 = Minor Arterial
5 = Principal Collector
7 = Rural Local Collector

DATA DESCRIPTION/RELATIONSHIP:	DATA SHOWN IN:	DATA
(1) Mileage of Sugarcreek Planning Area Principal Collectors that are 1st/2nd improvement priority.	Table 3-5 in Thoroughfare Plan Volume I.	11.10 miles

MAGNITUDE OF IMPROVEMENT NEEDS BASED UPON QUANTITATIVE RELATIONSHIP TO FUNCTIONAL CLASS MILEAGE:

(2) Related to mileage of Network roads that are of the same (Principal Collector) functional classification in:	Table 3-1	
(a) Western Planning Area Network	Table 3-4a	9.16% of 121.16 miles
(b) Greene County Network	Table 3-4b	8.45% of 131.35 miles

MAGNITUDE OF IMPROVEMENT NEEDS BASED UPON QUANTITATIVE RELATIONSHIP TO ENTIRE NETWORK MILEAGE:

(3) Related to mileage of all network roads in: (excluding Urban Local Collectors)	Table 3-1	
(a) Western Planning Area Network	Table 3-4c	3.24% of 342.43 miles
(b) Greene County Network	Table 3-4d	2.29% of 484.76 miles

From review of summary Table 3-4d, it is apparent that Western Planning Areas of: Beavercreek (4.4%), Sugarcreek (3.6%), Xenia (3.4%), and Bath (2.2%), have the greatest percentage of County Network roads that are in need of improvement. That table (3-4d) also shows that needs for improvement of Principal Collectors (6.13%) are nearly twice that of any other Network-class road of the entire County Network. However, Table 3-4b indicates that Principal Arterial improvement needs (30.7% of that class) are the greatest of any one functional class of the County Network, even though they constitute a lesser proportion of overall Network improvement needs compared to Principal Collectors (6.1% shown in Table 3-4d). This is due to the lesser mileage of Principal Arterials in the County Network, compared to that of Principal Collectors. Table 3-4b also shows that the greatest improvement needs in the Western Planning Area by functional hierarchy of Network class roads are for; Freeway Arterials in Beavercreek, Principal Arterials in Xenia, Minor Arterials in Beavercreek, Principal Collectors in Sugarcreek, and Rural Local Collectors in Miami Township. These relationships to the entire County Network are proportionately the same as indicated for the Western Planning Area Network road improvement needs (shown in Tables 3-4c and 3-4d), though percentages are slightly greater due to the smaller area of analysis and, thus, corresponding lesser mileage of Network roads.

From summary tables (3-5c and 3-5d) on deficient-ranked Eastern Planning Area Network roads related to the entire County Network, it can be seen that improvement needs are minimal to non-existent. Improvement needs as a percentage of the entire County Network are greatest in Eastern Planning Areas of; New Jasper (1.1%), followed by Silvercreek (.72%) and Cedarville (.70%). Network roads in the other Eastern Planning Areas of Caesarscreek, Jefferson, and Ross presented no needs for improvement according to the assessment, although some borderline deficient conditions on certain roads within each of them have been identified that are of third (least) priority for improvement. Specific improvements are suggested rather than programmed for such roads. Overall, improvement needs are the greatest for the Eastern Planning Area Principal Arterial class roads, due to deficiencies of U.S. Route 35 East of Xenia.

From reviewing Eastern Planning Area Network road improvement needs in relation to the entire County Network (Table 3-5c), it can be seen that nearly ten percent (10%) of the County Network class roads in that Area have first or second priority deficiencies. The greatest portion of overall improvement needs (6.4%) are associated with U.S. Route 35 East. However, review of improvement needs for a given functional class with respect to Eastern Planning Area roads of the same class (Table 3-5a) show that nearly twenty-one percent (21%) of the total mileage of Eastern Planning Area Principal Collectors need improvement, the majority of which are in Eastern Local Planning Areas of New Jasper and Silvercreek.

Table 3-6 is also a summary of the miles of priority one and two ranked deficient Network roads in each Local Planning Area by functional class, but it relates them to the Federal and/or State Agency or Local Government Department that is responsible to address the improvement needs that have been identified through the sufficiency assessment of Greene County Network roads.

The concluding tables (3-7a and b) summarize all of the Network roadway sufficiency assessment tables (3-4 through 3-6) just presented.

In final summary of the magnitude of existing Network road improvement needs, Table 3-7a indicates that just over ninety-two (92.21) miles or nearly nineteen percent (18.59%) of Network class roads in the County have deficient conditions that have been assessed first or second priority as to need of improvement. Disaggregated according to Network functional classes, the magnitude of road improvement needs, solely respective of the greatest to least mileage of priority one and two ranked deficient roads in each class, is in the order of (1) Principal Collectors, (2) Principal Arterials, (3) Minor Arterials, (4) Rural Local Collectors, and (5) Freeway Arterials. This is indicative of the functional relationship the Greene County Thoroughfare Network fulfills in being part of the greater Dayton metropolitan area. While many roads in Greene County are perceived locally as being of Principal Arterial importance relative to the origin and destination of local traffic within the local juridiction in which they exist, only those roads that

Table 3-6

FUNCTIONAL CLASS MILES of NETWORK ROADS of 1ST & 2ND IMPROVEMENT PRIORITY per PLANNING AREA LOCAL JURISDICTION by RESPONSIBLE IMPLEMENTATION AGENCY

LOCAL JURISDICTION NAME	FEDERAL AND/OR STATE ODOTS U.S. OR STATE ROUTES			COUNTY ENGINEERING DEPARTMENT COUNTY ROADWAYS				TOWNSHIP ROAD DEPARTMENT			CITY ROAD DEPARTMENTS			
	2	3	4	3	4	5	7	4	5	7	3	4	5	7
WESTERN PLANNING AREAS'														
Bath Township	1.08	-----	1.61	.72	-----	.26	.75	-----	1.57	-----	N/A	N/A	N/A	N/A
Fairborn City	-----	2.04	.44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.38	.02	1.96	----
Beavercreek Township	.52	-----	-----	.68	4.77	3.68	-----	-----	-----	1.45	N/A	N/A	N/A	N/A
Beavercreek City	2.22	-----	-----	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.46	2.93	3.70	-----
Miami Township	-----	-----	-----	-----	-----	2.02	3.66	-----	-----	1.46	N/A	N/A	N/A	N/A
Yellow Springs Village	-----	.97	-----	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	-----	.55	.18
Spring Valley Township	-----	-----	.55	-----	-----	2.56	-----	-----	-----	-----	N/A	N/A	N/A	N/A
Sugarcreek Township	-----	.52	1.15	1.67	.08	8.10	1.18	-----	1.22	1.14	N/A	N/A	N/A	N/A
Bellbrook City	-----	-----	.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	-----	1.78	-----
Xenia Township	-----	4.17	1.13	-----	.54	-----	2.09	0.04	.01	1.15	N/A	N/A	N/A	N/A
Xenia City	-----	3.27	.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	1.39	2.33	-----
TOTAL	3.82	10.97	5.79	3.07	5.39	16.62	7.68	0.04	2.80	5.20	1.84	4.34	10.71	.18
EASTERN PLANNING AREAS'														
Cedarville Township	-----	2.96*	-----	-----	-----	-----	-----	-----	-----	-----	N/A	N/A	N/A	N/A
Cedarville Village	-----	------	.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	-----	.15	-----
New Jasper Township	-----	4.64*	-----	-----	-----	1.10	2.61	-----	-----	-----	-----	-----	-----	-----
Silvercreek Township	-----	3.31	-----	-----	-----	.87	-----	-----	-----	-----	N/A	N/A	N/A	N/A
Jamestown Village	-----	1.15	-----	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	-----	-----	-----
TOTAL	0.00	9.10	.32	0.00	0.00	1.97	2.61	0.00	0.00	0.00	0.00	0.00	0.15	0.00
GRAND TOTAL	3.82	20.07	6.11	3.07	5.39	18.59	10.29	0.04	2.80	5.20	1.84	4.34	10.47	0.18
	30.00 Miles			37.34 Miles				8.04 Miles			16.83 Miles			

*Cedarville portion in New Jasper; i.e., only 1.68 miles of U.S. 35 soley in New Jasper Township.

SOURCE: RPCC of Greene County, 1983.

FUNCTIONAL CLASS CODING
2 = Freeway Arterial
3 = Principal Arterial
4 = Minor Arterial
5 = Principal Collector
7 = Rural Local Collector

Table 3-7 a and b

SUMMARY of the MAGNITUDE of NETWORK ROAD IMPROVEMENT NEEDS in GREENE COUNTY and WESTERN and EASTERN PLANNING AREAS by MILES AND PERCENTAGE of 1ST AND 2ND IMPROVEMENT PRIORITY ROADS according to (a)FUNCTIONAL CLASS and (b)IMPLEMENTATION RESPONSIBILITY

ROADS OF FIRST OR SECOND PRIORITY FOR IMPROVEMENT:		GREENE COUNTY BACKBONE NETWORK		= WESTERN PLANNING AREAS' SUB-NETWORK		+ EASTERN PLANNING AREAS' SUB-NETWORK	
Functional Classifications		Miles	Percent	Miles	Percent	Miles	Percent
2-Freeway Arterials		3.82	.70%	3.82	1.11%	None	-------
3-Principal Arterials		24.98	5.07%	15.88	4.63%	9.10	6.39%
4-Minor Arterials		15.88	3.18%	15.56	4.54%	.32	.22%
5-Principal Collectors		31.86	6.49%	29.74	8.70%	2.12	1.49%
7-Rural Local Collectors		15.67	3.15%	13.06	3.82%	2.61	1.83%
		92.21	18.59%	78.06	22.80%	14.15	9.93%
Agency or Local Jurisdiction Responsible for Improvements	Functional Class						
Federal and/ or State	(2,3,4)	30.00	32.53%	20.58	26.37%	9.42	66.57%
County Engineering Department	(3,4,5,7)	37.34	40.50%	32.76	41.97%	4.58	32.37%
Township Road Department	(4,5,7)	8.04	8.72%	8.04	10.29%	0.00	00.00%
City Service Departments	(3,4,5,7)	16.83	18.25%	16.68	21.37%	0.15	1.06%
		92.21	100.00%	78.06	100.00%	14.15	100.00%
				= 84.65%	+	15.34%	

SOURCE: RPCC of Greene County, 1983.

serve to collect and convey through-traffic to and from destinations beyond Greene County are truly Arterials of significance to the greater Region. This integral relationship, due to linkage with metropolitan Dayton, is also apparent from the distribution of Network road improvement needs. Miles of priority one or two ranked deficient Network roads in the Western Planning Area of Greene County (78.06 miles) are over five times (5.51:1) greater than in the Eastern Planning Area (14.15 miles).

The summary of improvement responsibility (Table 3-7b) shows that the greatest mileage (37.34 miles or 40.5 percent) of Network roads assessed first or second in priority for need of improvement are the responsibility of the Greene County Engineering Department. They are closely followed by Federal and State Departments of Transportation (DOTs), whom are responsible for 30 miles or 32.5 percent of Network roads needing improvement. Cities are responsible for the next greatest proportion of needed improvements (16.38 miles or 18.25 percent), followed by Townships (8.04 miles or 8.72 percent).

ACCIDENT SURVEY RESULTS and SUMMARY

The RPCC surveyed accident data on roads of the Greene County Network to supplement its sufficiency assessment thereof and to serve as part of the input in establishing an implementation sequence for improvements indicated by this Plan. The survey covered three years of accident data from 1979 through 1981. Only those locations where there were two (2) or more accidents per year have been included in the survey summary. Table 3-8 is the summary of that survey and Map 3-3 indicates the locations on Network roads where surveyed accidents occurred.

From the accident survey summary, it can be seen that the greatest number of accidents occurred on Western Planning Network roads, totaling 2,393 accidents from 1979 through 1981. Compared to the total number of accidents surveyed on Eastern Planning Area Network Roads within the same time period (123), Western Planning Area accident levels were nearly twenty times greater (19.45:1). However, the distribution of accidents by road functional class, is roughly the same for both Western and Eastern Planning Areas.

Review of total accidents by functional class shows that the great majority occurred on Principal Arterials (40.7%) and Minor Arterials (29.5%). The percentage of accidents on Principal Collectors (14.7%) is similar to, though slightly higher than, the percentage that occurred on Urban Freeway Arterials (12.95%). Comparably minor percentages of the total accidents surveyed occurred on Urban Local Collectors (1.15%), Rural Local Collectors (0.75%) and Interstate Arteries (0.23%).

Table 3-8

SUMMARY of ACCIDENTS SURVEYED from 1979 - 1981 on NETWORK ROADS per GREENE COUNTY PLANNING AREA LOCAL JURISDICTION

NUMBER OF ACCIDENTS PER: WESTERN PLANNING AREA LOCAL JURISDICTION	NETWORK ROAD FUNCTIONAL CLASS * 1	2	3	4	5	6	7	Total
Bath Township	0	27	219	23	51	8	0	= 328
Fairborn City	0	0	129	98	216	21	NA	= 464
Beavercreek Township	0	50	45	18	21	0	0	= 134
Beavercreek City	0	247	106	281	36	0	0	= 670
Miami Township	NA	NA	8	0	0	NA	8	= 16
Spring Valley Township	NA	NA	NA	8	0	0	0	= 8
Sugarcreek Township	NA	NA	8	0	21	NA	11	= 40
Bellbrook City	NA	NA	0	15	0	0	0	= 15
Xenia Township	NA	0	69	78	0	0	0	= 147
Xenia City	NA	2	397	151	21	0	0	= 571
SUBTOTAL	0	326	981	672	366	29	19	=2,393
EASTERN PLANNING AREA LOCAL JURISDICTION								
Caesarcreek Township	NA	NA	NA	20	NA	NA	0	= 20
Cedarville Township	NA	NA	14	29	NA	NA	0	= 43
Jefferson Township	6	NA	NA	0	NA	NA	0	= 6
New Jasper Township	NA	NA	3	NA	4	0	0	= 7
Ross Township	NA	NA	NA	12	NA	NA	0	= 12
Silvercreek Township	NA	NA	16	9	0	0	0	= 25
Jamestown Village	NA	NA	10	0	0	0	0	= 10
SUBTOTAL	6	0	43	70	4	0	0	= 123
COUNTY GRAND TOTAL	6	326	1024	742	370	29	19	=2,516
% GRAND TOTAL	0.2	12.9	40.7	29.5	14.7	1.2	0.8	= 100%

* 1 = Interstate Arterial
2 = Freeway Arterial
3 = Principal Arterial
4 = Minor Arterial
5 = Principal Collector
6 = Urban Local Collector
7 = Rural Local Collector
NA = Not Applicable

SOURCE: RPCC of Greene County, after Ohio Department of Highway Safety, Accident Records Division, 1979 - 1981.

By Planning Area local jurisdiction, the greatest number of accidents occurred on Network roads located in Beavercreek City, on which there were 670 accidents from 1979 through 1981. The next highest number of accidents (571) took place on Network roads in Xenia City. Subsequently lower numbers of accidents (between 500 and 100) occurred on Network roads in Fairborn City (464), Bath Township (328), Xenia Township (147), and Beavercreek Township (134). Accident levels in each of the other Planning Area Local Jurisdictions were less than 50 in number and in most were under 20.

The greatest number of accidents in Beavercreek City are associated with intersection locations on U.S.Route 35, Dayton-Xenia Road, and North Fairfield Road. In Xenia City, most accidents are, again associated with intersection locations, on Detroit Street (U.S. Route 68) and Main Street (U.S.Route 35). A lesser, although significant, number occurred on Church Street, Cincinnati Street (U.S. Route 42), and Second Street. In Fairborn City most accidents occurred at intersections on Broad Street (S.R. 444), Maple Street, Central Avenue, Main Street, Dayton-Yellow Springs Road, Superior Avenue, and Funderburg Road, in that order. (See Appendix D for detailed accident data summaries.)

For Townships, the greatest number of accidents occurred in Bath, mostly on State Route 444 (205 of the total 328). The rest in Bath Township occurred on Old State Route 4 and New State Route 235, Springfield Street, Trebein Road, National Road, and Zink Road, in that order. Xenia and Beavercreek Townships had the next highest number of accidents compared to Bath Township, although the combined number of accidents in both of those Townships did not equal the number that occurred in Bath Township. Most accidents in Xenia Township occurred on U.S. Routes 42, 68, and 35, followed by State Route 235. In Beavercreek Township, most accidents occurred on U.S. Route 35, followed in number by those that occurred on Fairfield, Fairgrounds, and Indian Ripple Roads. (See Appendix D for detailed accident data summaries).

MAP 3-4